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INDIA RETHINKS BIG DAMS

by Ravi Sharma

INDIA, IDRC/CSE -- Hydroelectricity is a clean, cheap and renewable source of energy, and India has an abundance of it. But growing pressure from environmental groups is forcing the government to reappraise its rush to build more and bigger dams. India is probably the first Third World country to do so.

Over the years India has become one of the world's leading dam builders. It has already built 1554 large dams and many small and medium dams at a cost of more than Rs.10,000 crores (US$10 billion). Another 200 hydroelectricity projects are either underway or planned.

India has a vast hydroelectricity potential of 75,000 MW, only 10 percent of which has so far been exploited. For a country heavily dependent on oil imports, the temptation is almost irresistible. But the benefits may not be so large when the real costs of building these large dams is taken into account.

With sites in the outer Himalayas now more or less exhausted, the country's dam builders are moving deep into the Himalayan interior, where the ecosystem is extremely fragile, causing concern among environmentalists. A local movement opposing construction of the 480 MW (megawatt) Vishnu Prayag Project has drawn attention to the ecological dangers it poses.

Concerned by the growing criticism of large dams, India's Planning Commission recently set up three working groups to revise the existing standards for evaluating them. The Commission, which clears all major major dam projects,

is now even challenging the assumption that hydro is the cheapest form of electricity. It argues that rehabilitation costs and damage to the ecosystem are being grossly underestimated in feasibility studies prepared by State authorities.

The proposed 220 MW dam on the river Bedti in South West India is a glaring example of how cost-benefit analysis can be manipulated. A farmers' cooperative in the nearby town of Sirsi, whose areca nut and pepper plantations will be submerged by the dam's waters, claim to have discovered serious shortcomings in the detailed project reports prepared by the Karnataka Power Corporation.

The costs estimated by the Power Corporation's engineers did not include loss of earnings from the 10,000 hectares of forest which were going to be either submerged or cleared, nor the loss of agricultural land. They took into account only the cost of acquiring the lands. If these and other hidden costs are taken into account, say the farmers, the actual benefits will be far less than the costs.

In the case of the Tehri Dam, already under construction in the Himalayan foothills, local environmentalists have warned of the dangers in the event of a major earthquake, because the dam and the lake it will create lie in a seismic zone. In South India a protest against the Silent Valley hydro project was sparked by the threat the project posed to the only remaining, genetically rich, tropical evergreen forest in the country.

Though protests based on financial and enviromental concerns are relatively new to India, the uprooting of thousands of families that the construction of a large dam usually implies, has always been a major cause of public protest. The government' rehabilitation programmes generally offer inadequate compensation. Repeatedly, people displaced by such projects have been made refugees in their own land.

Dams are generally built in remote forest locations, which is where most of the tribal population lives. Construction of a major dam has often meant a

direct assault on their lifestyle. The vital community fabric of the tribal villages is destroyed, and so is the forest environment on which their daily life depends. The Indravati dam in Orissa will submerge 99 villages, displacing some 4000 tribal families, and submerging 33,000 acres of land.

What is probably most galling to such uprooted groups is that they do not personally gain anything from these projects. All the power and water flows downstream, while these people continue to live in poverty -- often increased poverty because of the disruption caused by the dam. This neglect of the upstream population as well as of the environment is, in fact, proving to be the undoing of many proposed large dam projects.

The National Committee on Environmental Planning has stressed the need to begin watershed management of the catchment areas several years before dam construction starts. Several environmental pressure groups are pressing the Planning Commission to establish clear-cut guidelines with this in mind, and to clearly demarcate areas of environmental importance, so that these can be kept out of reach of future dam building projects.

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